

1. A method of generating an antibody, the method comprising:  
administering to a first mammal a nucleic acid encoding a fusion protein and  
expressing the fusion protein in the first mammal, wherein the fusion protein contains a  
first amino acid sequence and a second amino acid sequence, and wherein the second  
5 amino acid sequence contains a first member of a specific binding pair;  
removing from the first mammal a biological sample that contains the fusion  
protein;  
binding a second member of the specific binding pair to the fusion protein via the  
first member of the specific binding pair to thereby isolate the fusion protein; and  
10 administering the fusion protein to a second mammal, to thereby generate an  
antibody response in the second mammal against the first amino acid sequence of the  
fusion protein.
2. The method of claim 1, further comprising cleaving the first amino acid  
15 sequence from the second amino acid sequence.
3. The method of claim 1, wherein the first member of the specific binding pair is  
an Fc domain of an immunoglobulin.
- 20 4. The method of claim 1, wherein the biological sample is serum.
5. The method of claim 1, further comprising generating a lysate of the biological  
sample.
- 25 6. The method of claim 1, wherein the second member of the specific binding  
pair is an antibody.
7. The method of claim 6, wherein the antibody is a monoclonal antibody.
- 30 8. The method of claim 3, wherein the second member of the specific binding  
pair is an antibody.

9. The method of claim 8, wherein the antibody is a monoclonal antibody.

10. The method of claim 1, further comprising immobilizing the fusion protein.

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11. The method of claim 2, further comprising immobilizing the fusion protein.

12. The method of claim 3, further comprising immobilizing the fusion protein.

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13. The method of claim 1, wherein the first member of the specific binding pair is a peptide of at least five amino acids in length.

14. The method of claim 1, wherein the first amino acid sequence is identical to all or a portion of a naturally occurring human protein.

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15. The method of claim 1, further comprising isolating from the second mammal antisera containing an antibody that specifically binds to the first amino acid sequence of the fusion protein, wherein the antibody is produced in the second mammal following the administration of the fusion protein.

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16. The method of claim 1, further comprising removing a B lymphocyte from the second mammal and fusing the B lymphocyte *in vitro* with a second cell to form a hybridoma, wherein the hybridoma produces a monoclonal antibody that specifically binds to the first amino acid sequence of the fusion protein.

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17. The method of claim 1, further comprising removing components of the biological sample that are not bound to the second member of the specific binding pair, to thereby provide a purified fusion protein.

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18. A method of generating an antibody, the method comprising:  
 administering to a first mammal an isolated nucleic acid encoding a protein and  
 expressing the protein in the first mammal;  
 removing from the first mammal a biological sample that contains the protein; and  
 5 administering the protein to a second mammal, to thereby generate an antibody  
 response in the second mammal against the protein.

19. The method of claim 18, wherein the protein is a fusion protein.

10 20. The method of claim 19, wherein the fusion protein contains a first amino  
 acid sequence and a second amino acid sequence, and wherein the second amino acid  
 sequence contains a first member of a specific binding pair.

15 21. The method of claim 20, wherein the first member of the specific binding pair  
 is an Fc domain of an immunoglobulin.

22. The method of claim 20, wherein the first member of the specific binding pair  
 is a peptide of at least five amino acids in length.

20 23. The method of claim 18, wherein the biological sample is serum.

24. The method of claim 18, further comprising generating a lysate of the  
 biological sample.

25 25. The method of claim 18, further comprising isolating from the second  
 mammal antisera containing an antibody that specifically binds to the protein, wherein  
 the antibody is produced in the second mammal following the administration of the  
 protein.

30 26. The method of claim 18, further comprising removing a B lymphocyte from  
 the second mammal and fusing the B lymphocyte *in vitro* with a second cell to form a

hybridoma, wherein the hybridoma produces a monoclonal antibody that specifically binds to the protein.

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